

# Richard L C Vink

## List of Publications by Year in descending order

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60  
papers

1,909  
citations

257450

24  
h-index

265206

42  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1650  
citing authors

#	ARTICLE	IF	CITATIONS
1	A lipid bound actin meshwork organizes liquid phase separation in model membranes. <i>ELife</i> , 2014, 3, e01671.	6.0	161
2	Fitting the Stillinger-Weber potential to amorphous silicon. <i>Journal of Non-Crystalline Solids</i> , 2001, 282, 248-255.	3.1	158
3	Confinement effects on phase behavior of soft matter systems. <i>Soft Matter</i> , 2008, 4, 1555.	2.7	118
4	Grand canonical Monte Carlo simulation of a model colloid-polymer mixture: Coexistence line, critical behavior, and interfacial tension. <i>Journal of Chemical Physics</i> , 2004, 121, 3253-3258.	3.0	103
5	Raman spectra and structure of amorphous Si. <i>Physical Review B</i> , 2001, 63, .	3.2	99
6	Monolayer curvature stabilizes nanoscale raft domains in mixed lipid bilayers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 4476-4481.	7.1	99
7	Capillary waves in a colloid-polymer interface. <i>Journal of Chemical Physics</i> , 2005, 122, 134905.	3.0	95
8	Critical phenomena in colloid-polymer mixtures: Interfacial tension, order parameter, susceptibility, and coexistence diameter. <i>Physical Review E</i> , 2005, 71, 011401.	2.1	60
9	Large well-relaxed models of vitreous silica, coordination numbers, and entropy. <i>Physical Review B</i> , 2003, 67, .	3.2	57
10	Critical behaviour and interfacial fluctuations in a phase-separating model colloid-polymer mixture: grand canonical Monte Carlo simulations. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 3807-3820.	1.8	57
11	Liquid Crystals in Two Dimensions: First-Order Phase Transitions and Nonuniversal Critical Behavior. <i>Physical Review Letters</i> , 2007, 98, 217801.	7.8	50
12	Critical Behavior of Colloid-Polymer Mixtures in Random Porous Media. <i>Physical Review Letters</i> , 2006, 97, 230603.	7.8	43
13	Critical behavior of a colloid-polymer mixture confined between walls. <i>Physical Review E</i> , 2006, 73, 056118.	2.1	43
14	Interfacial tension of the isotropic-nematic interface in suspensions of soft spherocylinders. <i>Physical Review E</i> , 2005, 71, 051716.	2.1	40
15	Description of the Fluctuating Colloid-Polymer Interface. <i>Physical Review Letters</i> , 2008, 101, 086101.	7.8	36
16	Finite-size scaling in Ising-like systems with quenched random fields: Evidence of hyperscaling violation. <i>Physical Review E</i> , 2010, 82, 051134.	2.1	36
17	Domain formation in membranes with quenched protein obstacles: Lateral heterogeneity and the connection to universality classes. <i>Journal of Chemical Physics</i> , 2011, 134, 055106.	3.0	36
18	Raft Formation in Lipid Bilayers Coupled to Curvature. <i>Biophysical Journal</i> , 2014, 107, 1591-1600.	0.5	36

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19	Phase diagram and structure of colloid-polymer mixtures confined between walls. <i>Physical Review E</i> , 2006, 74, 031601.	2.1	35
20	Restricted orientation of liquid crystal in two dimensions: Isotropic-nematic transition or liquid-gas one(?). <i>Europhysics Letters</i> , 2009, 85, 56003.	2.0	34
21	Isotropic-nematic interfacial tension of hard and soft rods: Application of advanced grand canonical biased-sampling techniques. <i>Journal of Chemical Physics</i> , 2005, 123, 074901.	3.0	32
22	Device-size atomistic models of amorphous silicon. <i>Physical Review B</i> , 2001, 64, .	3.2	30
23	Critical behavior in colloid-polymer mixtures: Theory and simulation. <i>Physical Review E</i> , 2006, 73, 061407.	2.1	29
24	Membrane lateral structure: the influence of immobilized particles on domain size. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 14500.	2.8	27
25	Colloid-polymer mixtures between asymmetric walls: Evidence for an interface localization transition. <i>Europhysics Letters</i> , 2007, 77, 60002.	2.0	25
26	Bulk and interfacial properties in colloid-polymer mixtures. <i>Physical Review E</i> , 2005, 72, 030401.	2.1	24
27	Simulation and theory of fluid demixing and interfacial tension of mixtures of colloids and nonideal polymers. <i>Physical Review E</i> , 2005, 71, 051406.	2.1	24
28	Configurational Entropy of Network-Forming Materials. <i>Physical Review Letters</i> , 2002, 89, 076405.	7.8	23
29	First-order phase transitions in two-dimensional off-lattice liquid crystals. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 466109.	1.8	21
30	From capillary condensation to interface localization transitions in colloid-polymer mixtures confined in thin-film geometry. <i>Physical Review E</i> , 2008, 78, 041604.	2.1	19
31	Random pinning limits the size of membrane adhesion domains. <i>Physical Review E</i> , 2012, 86, 031923.	2.1	19
32	Critical behavior of the Widom-Rowlinson mixture: Coexistence diameter and order parameter. <i>Journal of Chemical Physics</i> , 2006, 124, 094502.	3.0	17
33	Colloid-polymer mixtures in random porous media: finite size scaling and connected versus disconnected susceptibilities. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 404222.	1.8	17
34	Critical behavior of soft matter fluids in bulk and in random porous media: from Ising to random-field Ising universality. <i>Soft Matter</i> , 2009, 5, 4388.	2.7	17
35	Isotropic-to-nematic transition in confined liquid crystals: An essentially nonuniversal phenomenon. <i>Physical Review E</i> , 2010, 81, 021705.	2.1	15
36	Connection between sliding friction and phonon lifetimes: Thermostat-induced thermolubricity effects in molecular dynamics simulations. <i>Physical Review B</i> , 2019, 100, .	3.2	12

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37	Structure and phase equilibria of the Widom-Rowlinson model. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 036101.	1.8	11
38	Colloid-polymer mixtures in the presence of quenched disorder: a theoretical and computer simulation study. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 115101.	1.8	11
39	Finite-size effects at first-order isotropic-to-nematic transitions. <i>Physical Review B</i> , 2009, 80, .	3.2	11
40	Monte Carlo simulations of phase transitions of systems in nanoscopic confinement. <i>Computer Physics Communications</i> , 2007, 177, 140-145.	7.5	9
41	The Widom-Rowlinson mixture on a sphere: elimination of exponential slowing down at first-order phase transitions. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 104123.	1.8	9
42	Phase Behavior of Polymer-Containing Systems: Recent Advances Through Computer Simulation. <i>Macromolecular Theory and Simulations</i> , 2011, 20, 600-613.	1.4	9
43	Cross-linked biopolymer bundles: Cross-link reversibility leads to cooperative binding/unbinding phenomena. <i>Journal of Chemical Physics</i> , 2012, 136, 035102.	3.0	9
44	Fluid phase separation inside a static periodic field: An effectively two-dimensional critical phenomenon. <i>Journal of Chemical Physics</i> , 2011, 134, 204907.	3.0	8
45	Fluids with quenched disorder: scaling of the free energy barrier near critical points. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 234117.	1.8	8
46	Crossover from a Kosterlitz-Thouless phase transition to a discontinuous phase transition in two-dimensional liquid crystals. <i>Physical Review E</i> , 2014, 90, 062132.	2.1	8
47	Insights into Hydrogen Gas Environment-Promoted Nanostructural Changes in Stressed and Relaxed Palladium by Environmental Transmission Electron Microscopy and Variable-Energy Positron Annihilation Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5246-5253.	4.6	8
48	Fluids in porous media: The case of neutral walls. <i>Physical Review E</i> , 2013, 88, 042131.	2.1	7
49	Noncontact friction: Role of phonon damping and its nonuniversality. <i>Physical Review B</i> , 2021, 104, .	3.2	7
50	A finite-temperature Monte Carlo algorithm for network forming materials. <i>Journal of Chemical Physics</i> , 2014, 140, 104509.	3.0	6
51	Coexistence diameter in two-dimensional colloid-polymer mixtures. <i>Physical Review E</i> , 2006, 74, 010102.	2.1	5
52	Nematics with Quenched Disorder: Violation of Self-Averaging. <i>Physical Review Letters</i> , 2010, 105, 147801.	7.8	5
53	Phase separation in fluids exposed to spatially periodic external fields. <i>Physical Review E</i> , 2012, 85, 031505.	2.1	5
54	Simulation of polysilane and polysilyne formation and structure. <i>Journal of Chemical Physics</i> , 2002, 116, 854-859.	3.0	4

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55	Main transition in the Pink membrane model: Finite-size scaling and the influence of surface roughness. <i>Physical Review E</i> , 2012, 85, 061912.	2.1	4
56	Membrane sorting via the extracellular matrix. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2015, 1848, 527-531.	2.6	4
57	Spatially resolved atomic-scale friction: Theory and simulation. <i>Physical Review B</i> , 2020, 101, .	3.2	3
58	Application of classical nucleation theory to the formation of adhesion domains. <i>Soft Matter</i> , 2013, 9, 11197.	2.7	2
59	Basic mechanisms of structural relaxation and diffusion in amorphous silicon. <i>Materials Research Society Symposia Proceedings</i> , 2001, 664, 2811.	0.1	1
60	Friction on incommensurate substrates: Role of anharmonicity and defects. <i>Physical Review E</i> , 2021, 104, 014802.	2.1	0